



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,157	02/18/2004	Floyd Backes	160-030	6049
34845	7590	05/16/2006		
McGUINNESS & MANARAS LLP 125 NAGOG PARK ACTON, MA 01720			EXAMINER PHILPOTT, JUSTIN M	
			ART UNIT 2616	PAPER NUMBER

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/781,157	BACKES ET AL.	
	Examiner	Art Unit	
	Justin M. Philpott	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 20, 2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1- have been considered but are moot in view of the new ground(s) of rejection. Specifically, the newly added claim limitations that applicant argues are not disclosed in the previously cited art are taught by the newly cited art of Pinard et al., as discussed in the following office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2616

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,580,700 to Pinard et al.

Regarding claim 1, English teaches a method for use by a wireless device (e.g., mobile node 902a, see FIGS. 9 and 10) in a wireless communications environment, the method comprising the steps of: associating the wireless device with a current access point on a first channel (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a associating with one of access points 904a or 904b, inherently comprising one or more respective channels within respective radio coverage areas 1012 and 1014; see also paragraphs 0076, 0100, 0141 and 0163 regarding channels); ascertaining, by the wireless device, whether the wireless device should attempt to associate with an alternative access point operating on a second channel (e.g., see paragraph 0170, particularly lines 9-17 regarding mobile node 902a makes the decision of which access point 904a or 904b to associate with); and requesting association with the alternative access point if it is ascertained that the wireless device should attempt to associate with the alternative access point (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not specifically disclose the ascertaining includes calculating an indication of available data rate based at least in-part on signal strengths and supported technology.

Pinard, like English, also teaches a method for use by a wireless device for associating with access points (e.g., see abstract and col. 2, line 36 – col. 3, line 36). Further, Pinard specifically teaches ascertaining for association with an alternative access point (e.g., see col. 2,

Art Unit: 2616

lines 49-59 regarding “associating with the most eligible access point at the highest data rate”) includes calculating an indication of available data rate (e.g., see col. 5, lines 26-31 regarding “evaluation of the signal quality ... at the highest data rate”; see also col. 10, lines 13-18 regarding “recognizing the data rate”) based at least in-part on signal strengths of transmissions from the current and alternative access points (e.g., see col. 5, line 59 – col. 7, line 36 regarding determining the RSSI of responses and, particularly, see col. 7, lines 26-31 regarding only associating with an access point if the signal strength for the access point at the selected highest data rate is of greater magnitude than the current access point signal strength), and at least in-part on technology supported by the current and alternative access points (e.g., see col. 7, line 38 – col. 9, line 60, and particularly, see col. 9, lines 10-23 regarding responses “specif[y] the rates that the AP can support”, e.g., either 1Mbit or 2Mbit technology as described in the remaining portion of the aforementioned citation to cols. 7-9). Additionally, the teachings of Pinard provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 2, English teaches automatically collecting, by the wireless device, information about access points operating on other channels (e.g., see paragraph 0178 regarding mobile node 902 being informed about information regarding access points 904a, 904b and 904c; and also paragraphs 0076, 0100, 0141 and 0163 regarding channels).

Regarding claim 3, Pinard teaches ascertaining further includes the step of determining that the wireless device should attempt to associate with the alternative access point if the alternative access point has a greater available data rate than the current access point (e.g., see col. 5, lines 26-31 regarding selecting the “highest data rate” for association and see col. 7, lines 26-31 regarding not associating with an alternative access point if the alternative access point is the same data rate with similar signal strength as the current access point). As discussed above, the teachings of Pinard provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 4, English in view of Pinard teach the method discussed above regarding claim 3, and further, English teaches calculating a first biased distance between the wireless device (e.g., mobile node 902) and the current access point based on “x” samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node 902, inherently comprising three or more samples); and calculating a second biased distance between the wireless device and the alternative access point operating on the second channel based on “y” samples (e.g., see paragraphs 0175-0180 regarding mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where “y” (e.g., known position of mobile node 902 and known position of access point 904b) is less than “x” (e.g., three

Art Unit: 2616

of more samples for triangulating the current position of mobile node 902). Also, as discussed above, Pinard teaches ascertaining further includes the step of determining that the wireless device should attempt to associate with the alternative access point if the alternative access point has a greater available data rate than the current access point (e.g., see col. 5, lines 26-31 regarding selecting the "highest data rate" for association and see col. 7, lines 26-31 regarding not associating with an alternative access point if the alternative access point is the same data rate with similar signal strength as the current access point). As discussed above, the teachings of Pinard provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 5, English teaches sending a message to the alternative access point operating on the second channel (e.g., see paragraph 0171 regarding mobile node 902a deciding to associate with a different access point and handing off communications to the different access point after authenticating with the different access point).

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 2616

6. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

7. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application Nos. 10/780,775; 10/780,804; 10/781,121; 10/781,214; 10/781,250; and 10/781,284. Although the conflicting claims are not identical, they are not patentably distinct from each other because each recite either identical or substantially the same limitations.

Specifically, at the time of filing, Application No. 10/780,775 comprises independent claim 1 which is essentially just a broader version of claim 1 of the instant application, whereby the primary difference is that the latter application refers to “transmission power level” while the instant application refers to “signal strength of transmissions”. At the time of the invention it would have been obvious to one of ordinary skill in the art to select ascertaining based upon transmission power level instead of ascertaining based upon signal strength of transmissions and/or data rate since one of ordinary skill in the art readily recognizes that adjusting the signal strength of transmissions and/or data rate implicitly results in a proportional adjustment of the transmission power level. Additionally, the present amendment of “available data rate” and “technology supported” are obvious variations, wherein it is well known in the art for a data rate to be based upon signal strength and supported technology.

Additionally, at the time of filing, the claims of Application Nos. 10/781,121 and 10/781,250 are written to be identical to claims 1-5 of the instant application with the exception

Art Unit: 2616

that the preamble of the claims of the latter application recites a “program product” whereas the preamble of the claims of the instant application recites a “method”, and the instant application presently includes the additional limitation of “operating on a first channel”. At the time of the invention it would have been obvious to one of ordinary skill in the art to utilize a program product for performing a method since one of ordinary skill in the art readily recognizes that a program product may advantageously perform steps of a method in order to provide a functional operation. Additionally, the present amendment of “available data rate” and “technology supported” are obvious variations, wherein it is well known in the art for a data rate to be based upon signal strength and supported technology. Furthermore, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

Further, at the time of filing, the claims of Application No. 10/780,804 and 10/780,214 are identical to claims 1-5 of the instant application with the exception that the latter applications include the additional language of “logic for”, and the instant application presently includes the additional limitation of “operating on a first channel”. At the time of the invention it would have been obvious to one of ordinary skill in the art to implement steps of an invention within logic since one of ordinary skill in the art readily recognizes that it is well known in the art to implement steps of invention with logic in order to perform the invention. Additionally, the present amendment of “available data rate” and “technology supported” are obvious variations, wherein it is well known in the art for a data rate to be based upon signal strength and supported

Art Unit: 2616

technology. Furthermore, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel.

Finally, at the time of filing, the claims of Application No. 10/781,284 are identical to the claims of the instant application with the exception that the instant application presently includes the additional limitation of “operating on a first channel”. As discussed above, Examiner takes official notice that it is well known in the art that a plurality of access points may operate on the same channel, and thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to operate the access points on a first channel since it is well known in the art that a plurality of access points may operate on the same channel. Additionally, the present amendment of “available data rate” and “technology supported” are obvious variations, wherein it is well known in the art for a data rate to be based upon signal strength and supported technology.

9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2616

11. U.S. Patent Application Publication No. US 2004/0047335 A1 by Proctor, Jr et al.

discloses that it is well known in the art of access point association for data rates to be dependent upon the signal strength (e.g., see paragraph 0004). This well known feature of IEEE 802.11 is also disclosed in U.S. Patent No. 6,898,198 to Ryan et al. (e.g., see col. 1, lines 40-43), U.S. Patent Application Publication No. 2002/0147031 A1 by Hood (e.g., see paragraph 0022), U.S. Patent Application Publication No. US 2003/0231655 A1 by Kelton et al. (e.g., see paragraph 0043), and U.S. Patent Application Publication No. 2004/0027284 A1 by Leeper et al. (e.g., see paragraph 0001).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M. Philpott whose telephone number is 571.272.3162. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571.272.3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin M Philpott